UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7
11201 Renner Boulevard
Lenexa, Kansas 66219

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RCRA 2/27/2018

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Mr. Lawrence C. Rosen
Environmental Operations, Inc
1530 South Second Street, Suite 200
St. Louis, Missouri 63104-4500

RE: Comments on the Vapor Intrusion Work Plan Implementation Report dated January 30, 2018, and Additional Work for the Solutia - J.F. Queeny Site, St. Louis, Missouri
EPA ID # MOD 004 954 111

Dear Mr. Rosen:

The U.S. Environmental Protection Agency Region 7 in consultation with the Missouri Department of Natural Resources has completed its review of the subject document and is providing the following comments to be incorporated into a revised submittal to be submitted within 30 days of receipt of this letter. In addition, the EPA is requiring that additional work be performed in accordance with Paragraph 53 of the Administrative Order on Consent Docket No. RCRA-07-2009-0015.

1. The revised report shall provide a discussion on the sub-slab sampling of the Ahrens Office Building and provide the sampling results as this data is to assess the potential for vapor intrusion.

2. The conclusions and recommendations section shall provide a paragraph that explains the relationship between sub-slab soil gas contaminant concentrations and indoor air contaminant concentrations. It shall explain why multiple lines of evidence should be considered when evaluating vapor intrusion potential, and be consistent with the EPA guidance (OSWER Publication 9200.2-154). It shall also explain why vapor intrusion is a dynamic phenomenon that requires continuous monitoring until potential vapor intrusion sources are mitigated.

3. While the two rounds of indoor air sampling indicated that building occupants were not exposed to contaminant concentrations that would pose a health risk, sub-slab sampling results indicated a significant potential of trichloroethene vapor migration into the indoor air of the Ahrens Office Building due to the high level of TCE (56,962 $\mu g/M^3$) measured in the soil gas beneath the building floor. This sub-slab TCE concentration is 284 times the EPA's industrial threshold value for TCE in sub-slab soil gas. Should any cracks, holes or openings develop in the building floor that allow for sub-slab soil gas migration into the building, it is possible that TCE air concentrations inside the Ahrens Office Building will exceed regional screening levels. In accordance with the EPA-Region 7 guidance, the sub-slab TCE concentrations warrant either the installation of a vapor intrusion mitigation system or continued indoor air monitoring of the Ahrens Office Building.

   Therefore, in accordance with Paragraph 53 of Administrative Order Docket No. RCRA-07-2009-0015 the EPA is requiring the installation of a vapor intrusion mitigation system or the performance

of semi-annual indoor air monitoring at the Ahrens Office Building. The revised Vapor Intrusion Work Plan Implementation Report shall include a recommendation for routine indoor air sampling or the installation of an indoor air monitoring system at the Ahrens Office Building. If you elect to perform semi-annual indoor air monitoring, an Indoor Air Monitoring Plan shall be submitted concurrently with the revised Vapor Intrusion Work Plan Implementation Report. At a minimum, the indoor air monitoring plan shall include the collection of two indoor air samples twice per year (one event in mid-summer and one event in mid-winter). The sampling shall continue until groundwater and sub-slab sampling results indicate there is no longer a risk of vapor intrusion at the building. This sampling is necessary to provide some assurance that building occupants are not being exposed to contaminant concentrations that could pose a health risk.

Please contact me at (913) 551-7755 if you have any questions concerning these comments.

Sincerely,

Bruce A. Morrison

Bruce A. Morrison
Project Manager
RCRA Corrective Action and Permits Section
Waste Remediation and Permitting Branch
Air and Waste Management Division

cc: Christine Kump-Mitchell, MDNR
Rich Nussbaum, MDNR
Eric Page, EOI